

ABSTRACT

A permanent magnet rotor for a brushless electric motor, comprising at least two main magnetic poles, disposed on a periphery of a rotor. Each opening angle A covers $N/2$ times the opening angle of each of the stator sections, with N being an odd number greater or equal to 3. A is required to be the nearest angle that is smaller than $360/P$ degrees, with P being the number of poles. Each of the main magnetic poles has a periphery with a central section $R1$ and two end sections $R2$. $R1$ has an opening angle $A1$. The opening angle $A1$ covers $N/2$ times the opening angle of each of the stator sections, with N being an odd number greater or equal to 3. $A1$ is required to be smaller than the opening angle A of each of the main magnetic poles of the rotor. Each of the main magnetic poles contains a dual-plate permanent magnet.